

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 25, 2011

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B.P. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending March 25, 2011

WCRR Repackaging Facility: As reported on March 4th and March 11th, there have been a number of recent conduct of operations, engineering and safety basis issues at the WCRR repackaging facility. These issues prompted WCRR facility management to pause transuranic waste processing operations on February 28th. WCRR resumed operations on March 18th, after facility personnel executed a resumption plan that included some compensatory measures intended to mitigate identified deficiencies. This week, WCRR operations encountered a series of additional problems discussed below. Transuranic waste inventory has been removed from the facility and the WCRR building is currently in cold standby mode.

On March 20th, four transuranic waste drums were transferred into the WCRR facility without proper verification that they complied with TSR-level facility material-at-risk (MAR) limits. An operations center operator used data for the wrong set of drums to perform the required MAR calculation then failed to have the calculation independently verified, as required by the surveillance procedure. WCRR personnel later identified the issue and took appropriate action. Although the facility MAR limit was never exceeded, WCRR management reported a TSR violation for a surveillance requirement that was not successfully performed within the required frequency. (The operator who performed the surveillance was later transferred from the facility to the hospital for a medical issue, which may have contributed to the event.)

On March 21st, WCRR engineering personnel discovered that the facility procedure used to perform a surveillance on the credited fire suppression system did not adequately implement the TSR surveillance requirement to verify that an unobstructed flow path exists between the fire water supply tank and facility sprinkler heads. The implementing procedure failed to require inspection of one facility valve that could obstruct the fire water flow path if it were in the closed position. Although the affected valve was found in the open position, facility management declared a TSR violation based on the procedural inadequacy.

Also on March 21st, WCRR engineering personnel discovered that a key safety basis assumption stating that no transuranic waste would be stored or processed in the decommissioned size reduction glovebox enclosure (GBE) had failed to be carried forward as a TSR-level Specific Administrative Control, as required. This discovery led to the declaration of a Potential Inadequacy of the Safety Analysis.

This week, facility personnel also observed containers of potentially flammable liquid inside the GBE that had never been identified by daily TSR surveillances required to verify that no flammable liquids are present in the facility. WCRR personnel plan to make a controlled entry into the GBE to recover the suspect containers to determine whether they contain flammable liquids or are empty. Categorization and reporting for this discovery are on hold pending results from the GBE entry and container evaluation.

Although significant new issues continue to surface at WCRR, the recent series of problems were identified by laboratory rather than NNSA personnel. This appears to be due, in part, to increased LANL attention on previously identified problem areas and the implementation of compensatory measures such as the assignment of a Senior Supervisory Watch and enhanced engineering reviews of credited systems. However, based on the number and nature of recent problems, this week the NNSA Site Office Manager sent a letter to LANL management expressing concerns about WCRR. A LANL senior manager has now been assigned to evaluate WCRR corrective actions and determine when operations can be safely resumed.